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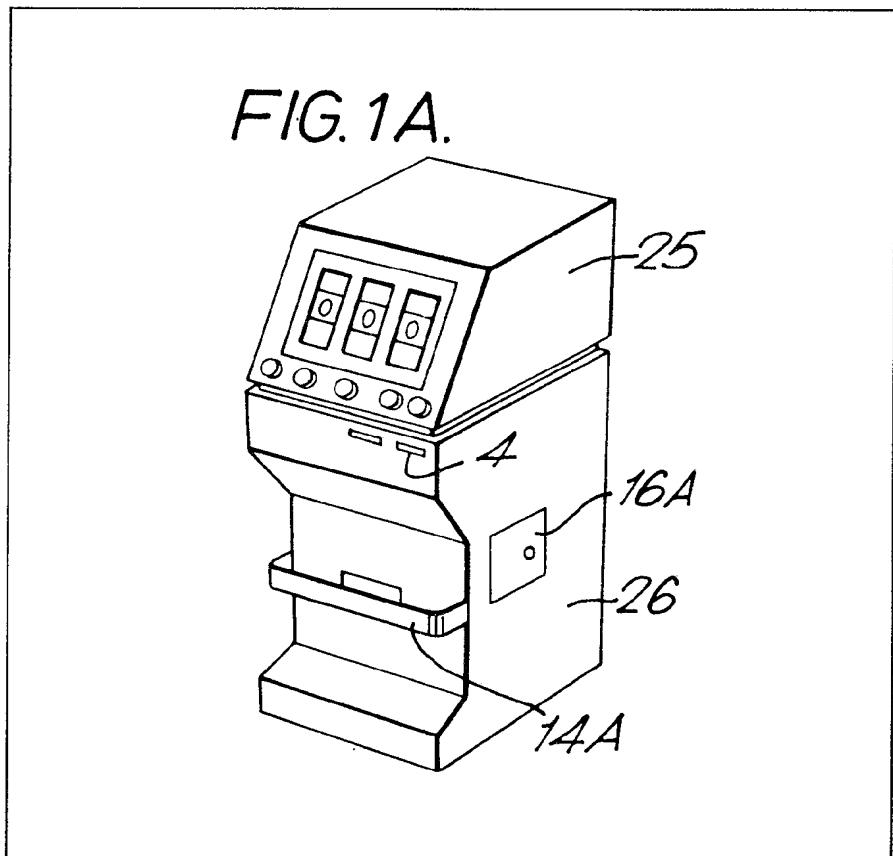
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(54) **Two part gaming machine**

(57) A gaming machine or amusement machine provided with a memory (10) for recording the amount of money fed thereto and paid out or removed therefrom. The money can be removed by

opening a door (16A) in a secure closure (26) forming the bottom part of a cabinet which houses the game in its top part (25), the opening of the door being recorded in the memory to give an indication of the amount of money made available for removal. Alternatively, a motorised payout may be used whereby all or some of the money in the machine can be paid out to an authorised person on activation of a key, code or card operated security means without said person needing to obtain access to the money inside the machine. Preferably, a printer is included in the machine to provide a printed record of money removed from the machine at the time of removal and a historic record at a later date of the money throughput of the machine.

The machine made in two parts may alternatively have the secure closure with its money handling facilities fitting on top of the game part of the machine.



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FIG. 1A.

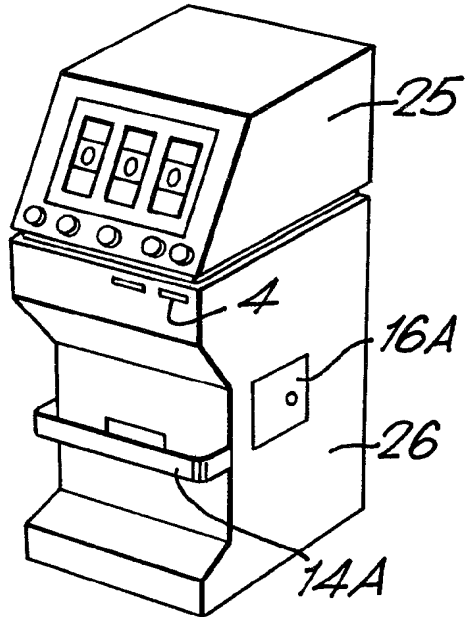


FIG. 1B.

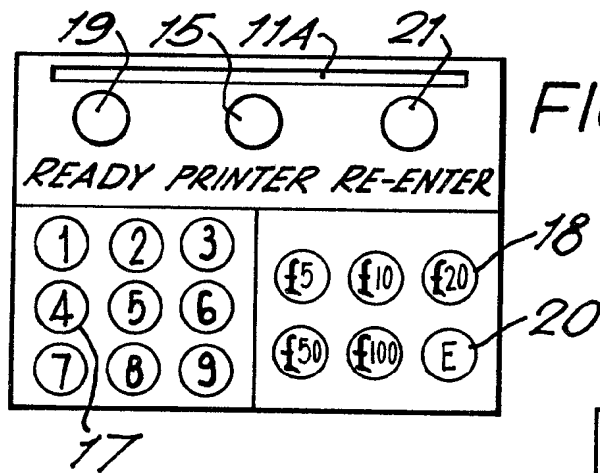
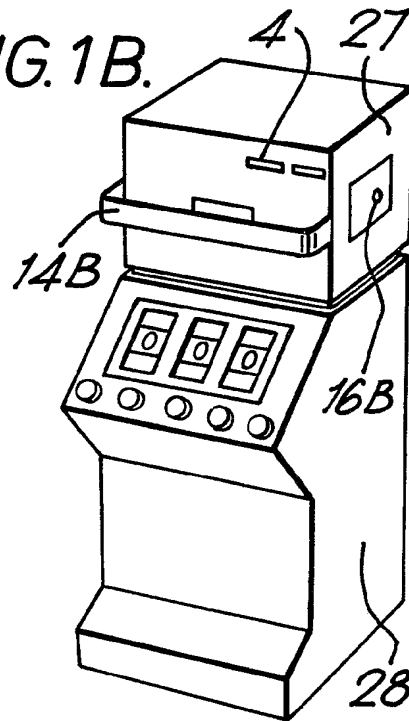


FIG. 2.

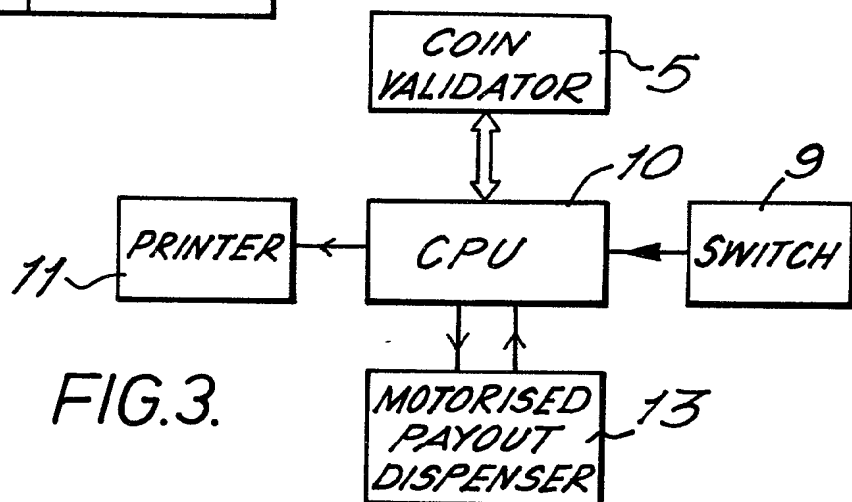


FIG. 3.

SPECIFICATION

Two part gaming or amusement machine

- 5 This invention relates to gaming or amusement machines which are coin or token operable, and which essentially comprise a game and its control electronics and a money (or token) mechanism and its associated electronics.
- 10 Present day coin or token operated amusement or gaming machines usually comprise a single cabinet of which the upper part contains the game and the coin receiving equipment and the lower part contains the coin handling and payout mechanism and a
- 15 separate cash box to which are fed all coins in excess of those needed to keep the "float" at its required level. This single cabinet construction has several disadvantages because it means that when a machine manufacturer wants to produce a new
- 20 game, he has to manufacture the whole machine whereas he is really only concerned with the top portion thereof as the cash handling and payout part are of no interest to him.

- The present invention overcomes this problem by
- 25 providing an amusement or gaming machine made in two separate parts, the top portion providing the game portion and the bottom part providing the money handling and payout mechanism as well as the coin store or vice versa. With such an arrange-
- 30 ment, the top part of the machine can be adapted to cooperate and fit on to the bottom part with the required mechanical and/or electrical connections therewith so it can be readily replaced as required when the game manufacturer wants to update or
- 35 replace the game part of the machine.

- The invention thus provides a two-part machine in which one part is separately housed to provide only the amusement or gambling facility while the other part is housed in a secure closure with associated
- 40 recordal means to record the money received by and removed from said closure, the two parts being operably connected together.

- Other problems of existing amusement or gaming machines will now be referred to. Such machines are
- 45 normally housed in a cabinet having a cash box in the base thereof to which coins or tokens inserted in the machine overflow once the machine float has been filled. These machines are usually rented from an operator who has to send a collector round on a
- 50 regular basis once or twice a week to empty them. Once emptied, the collector pays the renter his share of the takings from the machine and the remainder of the cash is then placed in the collector's van where it remains until all the machines on the
- 55 collection round have been emptied. As a machine can have as much as £400 in it, and between 10 and 20 machines per day are emptied, this considerable amount of cash in transit represents a substantial security risk for the machine operator on collection
- 60 days.

- Another problem with amusement or gaming machines is that because the renter cannot gain access to the cash box, if he runs out of change and the banks are closed, he will often call up the
- 65 machine operator and ask for the service engineer to

call simply to empty the machine so that he can then have all the change in it to pass back to his customers. It will be appreciated that this practice is most unsatisfactory from the operator's point of view as a skilled service engineer is tied up at the site for at least one hour doing a job that does not require his particular skills.

- To overcome these problems, it is highly desirable that the renter be able to empty the machine himself
- 75 as required, the machine keeping a record of the amount of money removed which the operator can check on a regular basis against the money given to him by the renter for his share of the takings from the machine. Such a machine is a benefit to the
- 80 renter because he can obtain his share of the money from the machine on request and thus he should never find himself short of change. Furthermore, the machine should never need to be left for long periods of time with a lot of money in it other than
- 85 the "float" so it should prove much less attractive to burglars. The operator also benefits because he need only send an inspector (who need not be skilled in machine maintenance) round to all his sites say one each month to check that his receipts from the
- 90 renter agree with the money drawn from the machine.

Our copending Patent Application No. 8231926, from which the present application is divided, provides a solution to these problems.

- 95 According to the invention of our copending Application No. 8231926, there is provided a money operated machine or part thereof comprising
- a) a secure closure for receiving money fed to said machine,
- 100 b) means for recording in an electronic memory the amount of money received by said closure,
- c) security controlled emptying means on the closure connected to the memory and operable to permit a first authorised person to remove from the
- 105 closure all the money to which access is gained on operation thereof,
- d) said security controlled emptying means being operable, on activation thereof, to record in the memory the amount of money made available for
- 110 removal,
- e) the memory being accessible only by a second authorised person to check the money received by and removed from the closure.

- Desirably, the machine or part thereof includes a
- 115 printer operable in association with the security controlled emptying means to provide a permanent record for retention by said first authorised person of the amount of money made available for removal. Preferably, the printer is also operable to provide a
- 120 record for the second authorised person of the amount of money made available for removal by the first authorised person, but said record only being available to the second authorised person. The provision of a printer is particularly advantageous as it provides the machine renter with a permanent
- 125 record of all money made available for removal from the machine which can be checked later against the machine owner's receipt also produced by the printer should any discrepancy arise.

- 130 The security controlled emptying means can take

various forms. At its simplest, it comprises a door in the secure closure having release means connected to the memory. This arrangement is particularly convenient for use in a machine using a removable cash box as it allows the renter full access to it as required, a record being made in the memory when the door is opened the amount of money made available for removal. In a preferred embodiment the door is located on the closure so that, on opening it, all the money available for removal falls from said closure.

As an alternative to this arrangement, the emptying means can comprise a manual or power operated member normally closing a gravity fed payout opening in the closure, said member having release means associated therewith connected to the memory whereby each time said member is opened, a record thereof is made in the memory.

The release means can take any convenient form. For instance it may be a simple key operated lock. Alternatively, the lock may be electrically powered and responsive to a signal generated by a security device associated therewith only when it has received a correct authorised code.

In its simplest form, the money made available for removal from the secure closure can be removed either by gaining direct access to the cash box or by emptying it through a gravity fed outlet. However, in a preferred arrangement, the emptying means comprises at least one electrically driven money dispenser operable to dispense money to the first authorised person from a money store in the closure. The money dispenser can either dispense all the money made available down to the float for the machine in one continuous payout process or selector means can be associated therewith so that the money is dispensed in fixed amounts of say £5 or £10.

The coin dispensers can be one or more electrically operated coin dispensers with hoppers such as those covered by our U.K. Patent No. 1,445,089. With such dispensers, coins or tokens can be fed from a hopper attached thereto individually at a rapid rate so they have the advantage that a bigger bulk of coins to be paid out can be retained by the machine than would be possible if known solenoid operated payout tubes were used. However, a separate coin store feeding individual dispensing means such as known solenoid operated payout tubes can be used if desired. Alternatively, one or more coin dispensers as described in our copending U.K. Patent Application No. 8135027 may be used.

If the money operated machine is required to pay out prize money, the coin dispensing mechanism can be additionally responsive to a further signal generated by the machine to pay out the required number of coins or tokens needed for the prize.

The data recording means is capable of recording data such as the number of coins received, and, if appropriate, the number of coins paid out as prizes, the number of coins made available to the first authorised person, as well as the time and date of all such occurrences. These are the most important pieces of data which should be recorded but it will be appreciated that the machine owner may wish for other additional data and accordingly appropriate

means can be included in the data recordal system to obtain this. It is important, however, that the data recording system should memorize and/or record the data in a retrievable manner and also that the memory be non-volatile.

The security means on the cabinet can take any convenient form. For instance it can be a key operated mechanism (the key being unique to that machine) whereby turning the key through say 45 degrees will result in a £5 payout to the authorised person, rotation through 90 degrees will give £20, 135 degrees will give £50 and 180 degrees will empty the machine down to the "float". The angular displacements of the key just given are by way of example only as are the amounts paid out for each position of the key.

The security means can be a series of buttons, either on display or preferably hidden behind a lockable flap, by means of which the renter can key in his particular identification code and, if accepted, thereafter can press the appropriate dispensing keys to initiate a payout according to the financial amount indicated on the key.

Alternatively, the coins or tokens can be stored separately by denomination in a coin store comprising one or more individual hoppers each of which can be wholly or partly emptied on activation of a button operably connected thereto, the button having marked thereon the denomination of the coins or tokens in its associated hopper.

Instead of using a button or key system, a code activated system could be employed activated for instance by a card, ultrasonic signal or even a signal transmitted down a telephone line.

Desirably, the machine also includes some means whereby no payment is made either to a player or an authorised person if the electrical supply to the data recordal system is severed or the system is tampered with.

In accordance with the present invention, all the above-described money handling facilities of the machine and the associated electronics are housed in one part of the machine which forms a secure closure. The other part which, sometimes due to the nature of the game, e. g. a video game, provided, cannot always be made such a secure closure, houses only the game and its control electronics.

Preferred embodiments of the invention will now be described, by way of example only, with reference to the accompanying drawings, in which:-

Figure 1A shows a two part amusement machine with the game part located on top of the money handling part;

Figure 1B shows a two part amusement machine with the money handling part located on top of the game part;

Figure 2 shows a security means and payout selector; and

Figure 3 is a block diagram showing the arrangement in the money handling part of the machine.

Referring to the drawings, there is shown in *Figure 1A* a gambling game comprising the top part 25 of a cabinet. The bottom part 26 of the cabinet is a secure closure which accommodates the money handling facilities of the game. In this secure closure, a coin

entry slot 4 is provided on the front, the slot forming part of a known coin validating mechanism. More than one coin validating mechanism may be provided. If the coin inserted in the slot 4 is a true coin and accepted by the coin validator, it falls into a cash box located below it. The bottom 7 of the cash box may be hingedly mounted so that it can be swung down to empty the contents of the cash box. The hinged bottom of the cash box can be provided with a key operated lock which includes a switch 9 (see Figure 2). The switch 9 is connected to a central processing vent 10 of known type with a memory and is operable so that each time the box bottom 7 is opened, a pulse is transmitted to the memory to be recorded and stored therein.

The coin validator is also connected to the memory so that each time a true coin passes through it, a record thereof is entered in the memory. Thus, it will be seen that the memory is operable to store all the data relating to the money throughput in the secure closure 26 of the machine.

The machine preferably also includes a printer 11 connected to the memory. In the illustrated embodiment, it is separately activated by a button after the bottom has been opened and the money removed from the cash box. However, it could be arranged to automatically print a receipt of the money made available for removal when the bottom is opened.

With the illustrated arrangement, all the money can be removed from the cash box by the first authorised person as the memory has recorded the amount of money fed to it and there is no need to retain a float in the machine as it does not have to pay out any prize money.

The illustrated machine can however be adapted to operate as a gaming or amusement machine which pays out prize money by simply feeding the coins from the coin validator to a coin payout mechanism, such as one or more known payout tubes or motorised hoppers, until such time as these payout mechanisms are full to provide the machine "float". Thereafter, the coins will overflow into the cash box to provide the profit of the machine. For this purpose, for example, a machine using a motorised hopper may be employed, which hopper includes in its base a motor driven mechanism which entrains coins from the hopper and dispenses them individually therefrom. With this arrangement, at least an amount of money to cover the maximum prize payout must be retained by the machine at all times (known as the float). The hopper is connected to the memory so that it can only be emptied by an authorised person down to its float level. Accordingly, the transfer of data between the CPU 10 and the printer 11 must be two way so that information relating to the amount of money paid out into a payout tray 14A can be referred back to the basic float data stored in the memory and appropriate instructions transmitted from the CPU to switch off the powered payout when the float level has been reached.

The memory should preferably be non volatile and capable of storing information relating to money made available for removal in a form that can be recalled later by a second authorised person and

either displayed on a visual display or printed out on the printer 11. Desirably, the information obtainable at the printer 11 by the second authorised person is not available to the first authorised person.

The illustrated machine can be modified to provide a printed receipt for the second authorised person in addition to that provided for the first authorised person. The first receipt can be automatically printed out when the lock is operated. The second receipt can either be produced at the same time by another printer inside the machine for collection by the second authorised person in due course or it can be obtained by the second authorised person at a later date by activating the printer using a special key.

Instead of using key operated locks, a security system may be used with a control panel such as that shown in Figure 2. With this arrangement, the first and second authorised persons would each gain access separately to the memory on entry of an appropriate code number and a print out provided based on the information supplied from the memory.

If a motorised money dispenser is used such as the hopper or a dispenser such as described in our copending Patent Application No. 8135027, there is no need for the first authorised person to have access to the interior of the bottom part 26 of the cabinet at all because the motorised money dispenser can pay out either all the money available for removal or in predetermined amounts. An example of a suitable control panel for use with a motorised money dispenser can be seen in Figure 2 to include a printer 11A operable by a button 15, a set of coded buttons 17 (numbered 1 - 9 in the illustrated embodiment) and a further set of buttons 18 indicating the amounts of money which can be withdrawn. This control panel would normally be protected by means of a lockable door 16A (see Figure 1A).

If the renter wishes to obtain money from the machine, he unlocks the door 16A, enters his particular code number using the code buttons 17 to obtain clearance from the machine that he is an authorised person. If his code is correct, then a ready light 19 lights up and he can then decide how much money to remove from the machine by operating the appropriate buttons 18. If the machine is to be completely emptied or at least down to its float, then the E button 20 must be used. Having operated the appropriate button, the money would be paid out into the payout tray 14A for removal. Activation of button 15 then produces a printed record of the money that was made available, the money that had been received by the machine and the date and time that the payout was made. If a wrong code number is entered or the amount of money demanded is in excess of the amount of money available for removal, a "re-enter" light 21 will light up and nothing will happen until an accepted combination is re-entered on the keyboard.

The control panel shown in Figure 2 can be replaced by any other suitable security means. For instance, the machine could be made to respond to a suitably coded card or an ultrasonic activator. Furthermore, whilst it is desirable to protect the printer

11A by the door 16A, the printer can be provided elsewhere on the secure closure 26 of the cabinet if desired.

The present invention thus provides a two part gaming machine in which all the above-described money handling facilities are accommodated in the secure closure 26 which, in Figure 1A, constitutes the bottom part of the cabinet.

In the Figure 1B arrangement, which is otherwise the same, the coin handling part 27 rests on top of the game part 28. The upper and lower parts are electrically connected together in known manner by suitable means to enable money to be paid out if a winning combination is achieved on the game part 15 of the machine.

CLAIMS

1. An amusement or gaming machine wherein the machine has a two part cabinet comprising a replaceable part which houses the game and its controls and a secure closure which houses the money handling facilities with associated electronics, means being provided electrically to connect the two parts of the machine together for interaction of the game and the money handling facilities when the replaceable part and the secure closure are fitted together.

2. A machine according to claim 1, wherein the replaceable part fits on top of the secure closure.

3. A machine according to claim 1, wherein the secure closure fits on top of the replaceable part.

4. A machine according to any of claims 1 to 3, wherein the secure closure has:-

- a) an entry slot for money,
- b) means for recording in an electronic memory the amount of money received by said closure,
- c) security controlled emptying means on the closure connected to the memory and operable to permit a first authorised person to remove from the closure all the money to which access is gained on operation thereof,
- d) said security controlled emptying means being operable, on activation thereof, to record in the memory the amount of money made available for removal,
- e) the memory being accessible only by a second authorised person to check the money received by and removed from the closure.

5. A machine as claimed in claim 4 including in the secure closure a printer operable in association with the security controlled emptying means to provide a permanent record for retention by said first authorised person of the amount of money made available for removal.

6. A machine as claimed in claim 5 wherein the printer is also operable to provide a record for the second authorised person of the amount of money made available for removal by the first authorised person, but said record only being available to the second authorised person.

7. A machine as claimed in any of claims 1 to 6 wherein the emptying means comprises a door in the secure closure having release means thereon connected to the electronic memory whereby each

time the door is opened, a record thereof is made in the memory.

8. A machine as claimed in any of claims 1 to 7 wherein the emptying means comprises a manual or power operated member normally closing a gravity fed payout opening in the closure, said member having release means associated therewith connected to the memory whereby each time said member is opened, a record thereof is made in the memory.

9. A machine as claimed in claim 7 wherein the door is located on the closure so that, on opening it, all the money available for removal falls from said closure.

10. A machine as claimed in any of claims 7 to 9 wherein the release means is a lock.

11. A machine as claimed in claim 10 wherein the lock is electrically powered.

12. A machine as claimed in claim 10 wherein the lock is manually released by means of a key.

13. A machine as claimed in claim 11 wherein the lock is released in response to a signal generated by a security device associated therewith only when a correct authorised code has been received thereby.

14. A machine as claimed in any of claims 1 to 6 wherein the emptying means comprises at least one electrically driven money dispenser operable to dispense to the first authorised person money from a money store in the closure.

15. A machine as claimed in claim 14 including means whereby the money dispenser is operable to dispense money in predetermined amounts on receipt of an appropriate signal from selector means operably associated therewith.

16. A machine according to any of claims 1 to 14, having means for recording in an electronic memory data relating to the money handled by the money handling facilities, and also having means enabling access to said memory for authorised extraction of the recorded data.

17. A machine according to claim 15, wherein the access means comprises means enabling the extraction of said data and transmission thereof on telephone lines, as by a MODEM link.

18. A money operated machine or part thereof substantially as herein described with reference to Figure 1A or Figure 1B of the accompanying drawings, with or without Figure 2 or Figure 3.